2025

HCIN6222

HCIN6222 POE PART 1

KEOAGILE MAFORA

Contents

What am I doing?

I'm creating website that is going to track your assignment and is going to notify you when there is something you need to submit, there's going to be a calendar that will show all the dates and what is due when so that when you open the app there's a reminder that the student needs to be ready for the assignment or tests.

Introduction

This assignment shows how I planned and designed the web application that tracks assignments of students. This website will help students with managing deadlines, receiving reminders of the assignments, and improve productivity of the students by having features such as calendars, notifications, and progress tracking of the assignments. In this document, I will be explaining the website's functionalities, the usability goals, the user experience aspects, the design principles, the interaction types, and the social and emotional interactions that are added into the system. The users will manually insert which modules they are doing and when they will need the reminders for the assignments that are due.

Functionality

When a student visits the website, they see a homepage that gives the user an option to register or log in.

1. If the user is new to the website, the user must click the register button, they must provide their names, their students email, and the password that they are going to use when using the website. The website will confirm that the registration is good by redirecting the user to the login page.

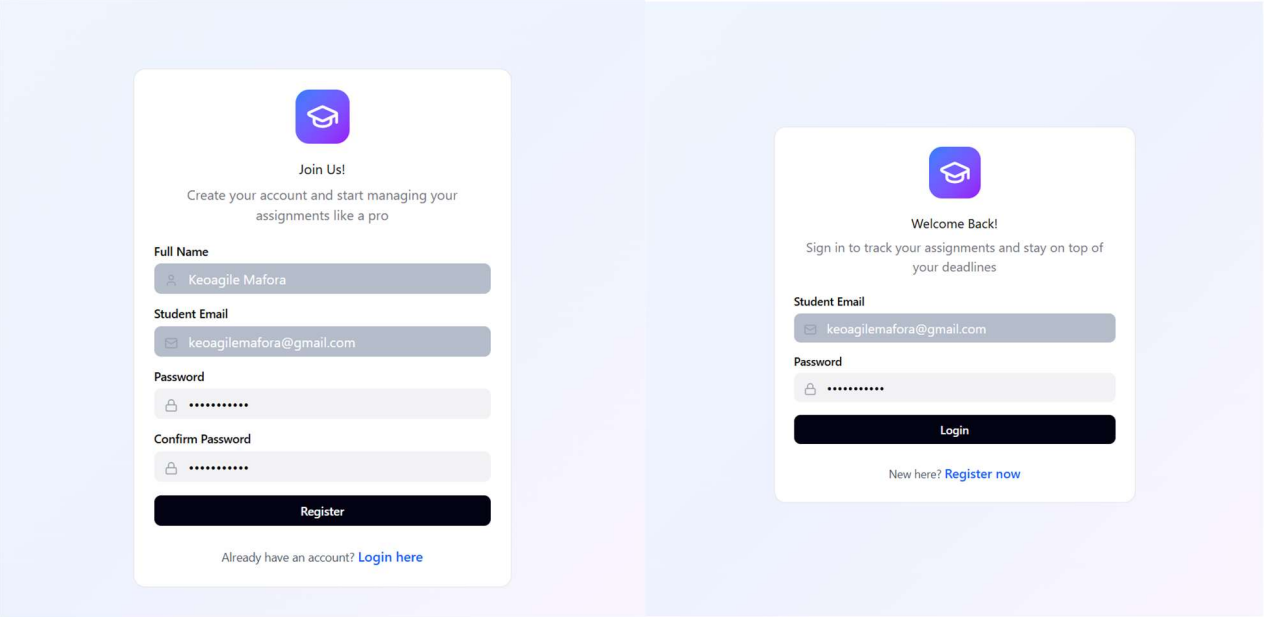

Figure 1

2. Then if the user has already registered, the user will login then it will go automatically to the dashboard. At the top of the dashboard, the student will see the date, and on the side, there is a list of the tasks.

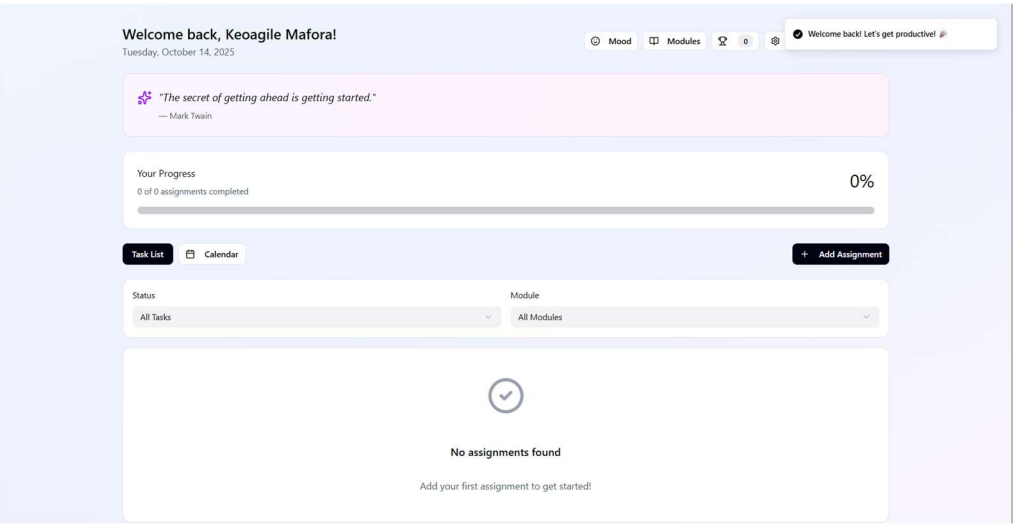

Figure 2

3. When the student wants to add the first task, they will click the “Add Assignment” button . Then the student sees a form where they can enter the title, the dropdown of the module, the due date, and the reminder time. Once the student saves, the assignment will be shown on the dashboard on the task list.

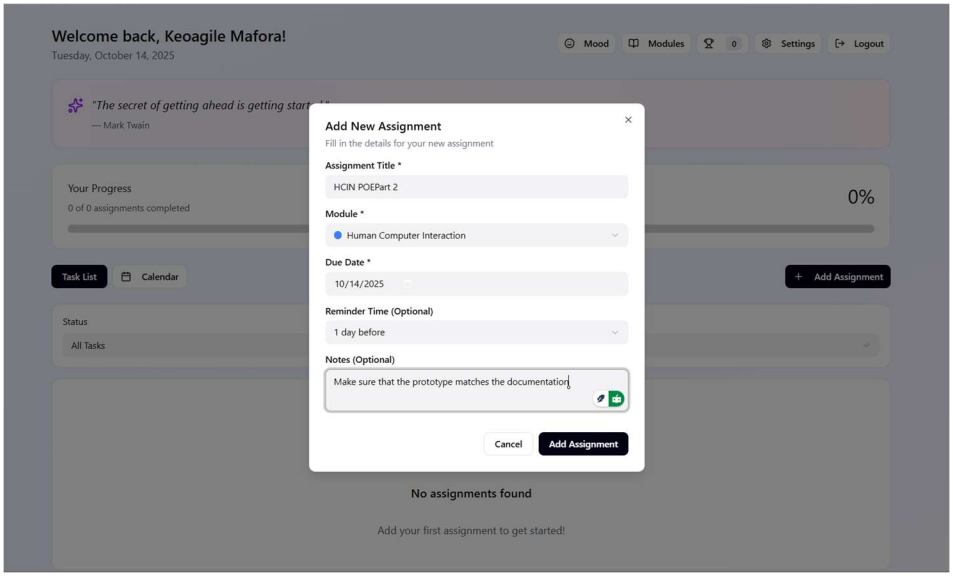

Figure 3

4. As the deadline approaches, the system sends the user a notification, not outside of the website, when using the website. This will help the students stay on track with the tasks without having to

check the tasks constantly.

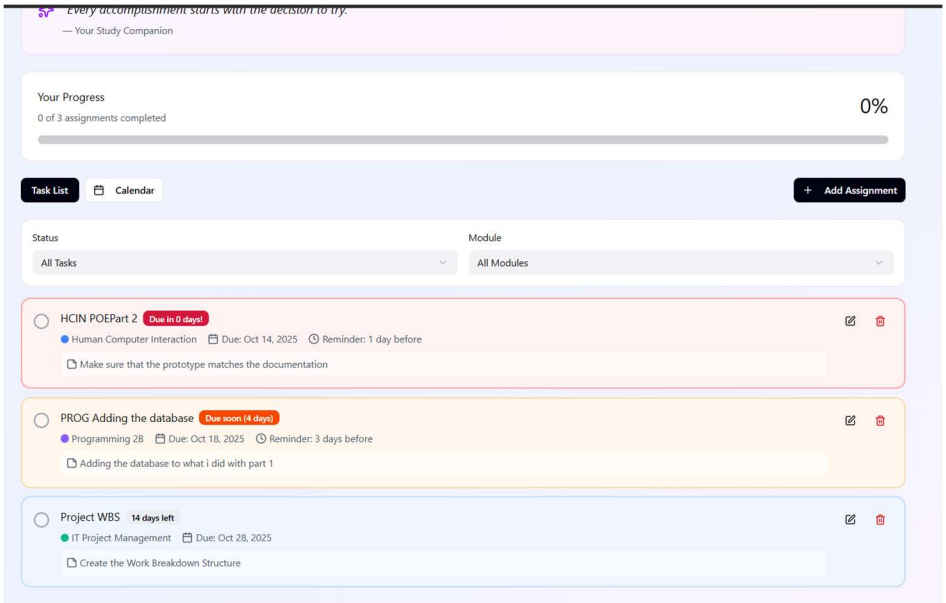

Figure 4

5. When the student finishes the assignment, the student returns to the dashboard and click the "Mark as Completed". The task turns green, meaning the progress bar is be updated. Showing the user that it's an achievement.

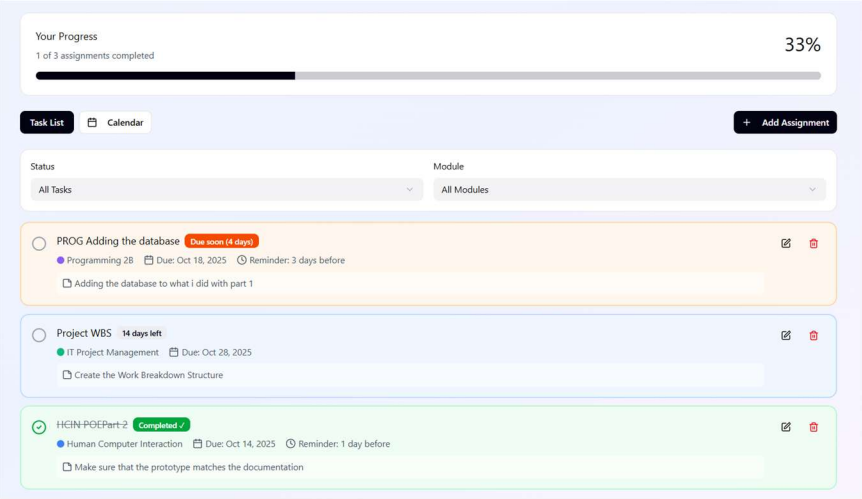

Figure 5

6. If the user needs to edit a task, the student can simply click on the task in the calendar, they can update the details and save the tasks. If the user wants to delete it, the system asks the user to confirm so that there are no mistakes.

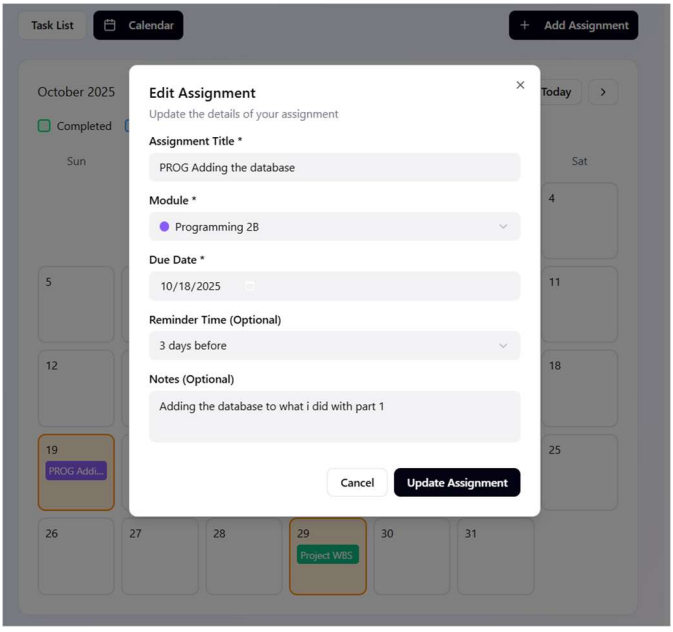

Figure 6

7. The student can browse the calendar to see all the upcoming assignments by a certain module, and the student can filter them based on the due date and the completion status.

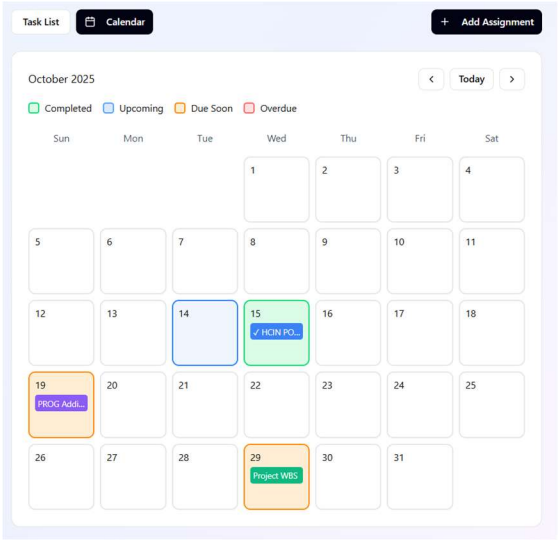

Figure 7

8. When the student is done using the website, they can click the Log Out button, then the system closes.

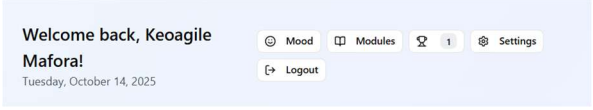

Figure 8

Usability Goals

I made it Effective to use:

- I added a feature to make sure that the users can clearly see their upcoming tests, assignments or exams with their deadlines. I made sure that there is color co-ordination to the tasks that are needed meaning there are colors such as green - done, blue – still have time, and red – which is due soon(This is be red in the last days), this is easy for the user to see that they have completed or could not meet the deadlines. As shown in the figure 4.
  I made sure that there is a confirmation message after every action such as (“The task is done”), for the user to know that they have completed the task on time.

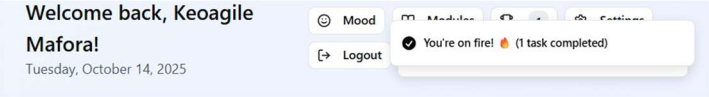

Figure 9

I made it efficient to use:

- Since I’m making it for my peers, I added modules that we are using in our 2nd year, but the user can add the modules. So that the users can be comfortable with the colors they have chosen, this helps the user to be on the website more due to the colors

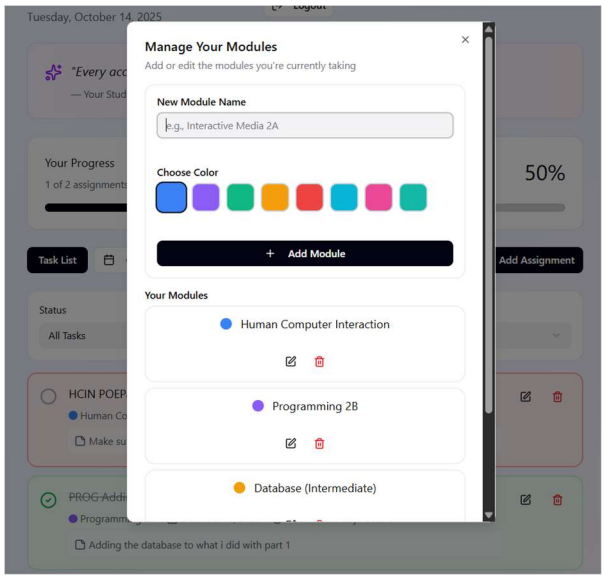

Figure 10

- Adding a calendar tap to add reminders so that the users don’t type manually the date of the due date. I made sure that every page has own function and can be accessed with its own buttons so that the user does not have to search on their own. As shown in Figure 7

I made it safe to use:

- I added safety precautions such as an undo option so that when the user makes a mistake when creating a task meaning they will easily use the website. Including a login system that has a username and password so that there can be protection of sensitive information. Adding an option to confirm if the user is sure about the actions that they are doing.
  As shown in Figure 1 above.

I made it have good utility:

- I made sure that there are notifications when there is a deadline approaching, this will also include the colors in the calendar to show that deadlines are on the way as shown in figure 7.

Figure 11

I made it easy to learn:

- By adding simple icons and simple English in the buttons so that the users can use the application easily. As shown in figure 2 above.

How I made it easy to remember:

- I made sure that it remains the same the whole time, I implemented similar icons to most popular websites so that it is easy to use and remember.
  This is shown above in figure 2.

Desirable aspect of user experience

- Satisfying: I added a progress bar so that when the user finishes their assignments or any tasks, the users can be satisfied with their progress of finishing tasks.
  This is shown in figure 5 above.
- Enjoyable: The users can choose their desirable colors, and the colors they are comfortable with.
  This is shown in figure 10 because is shows that the website allows the user to choose the colos they are comfortable with.

- Exciting: There are achievements when users are finished with a certain number of certain tasks.

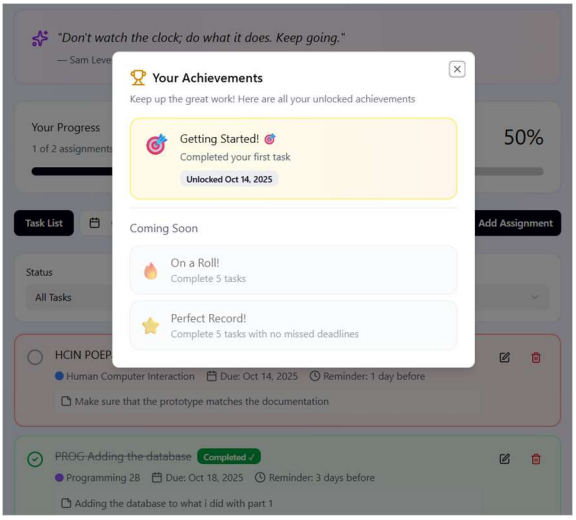

Figure 12

- Entertaining: Adding productivity quotes when the user either finishes the tasks or when they couldn't finish a task. When a user finishes the work , there are words of affirmation whether they are done with the assignments, or they fail to meet the deadlines, like the picture below.
  Figure 2 shows that there are different affirmation everytime they log in it is shown at the top of the diagram
- Helpful: When there is an assignment being submitted in a day, the user is notified that they should start or just be notified that there's is an upcoming assignment.
  Figure 11 shows that upcoming notification.
- Enhancing sociability: Adding an option to share the users' progress of the finished tasks with their peers. As shown below

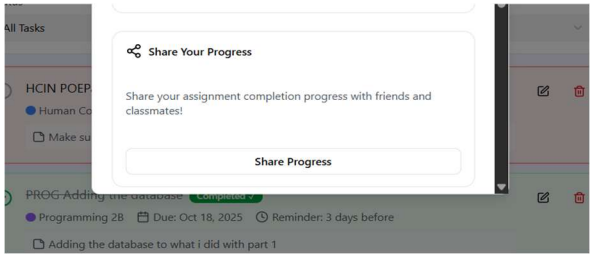

Figure 13

- Supporting creativity: Adding an option for the user to customize their calendar.

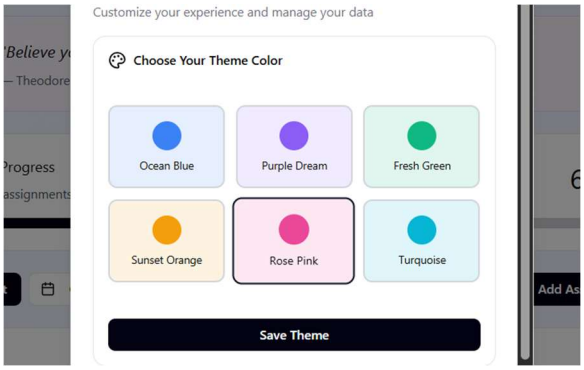

Figure 14

- Fun: Having a friendly tone when there is any pop up in the application, for example, “Well done!!!”.

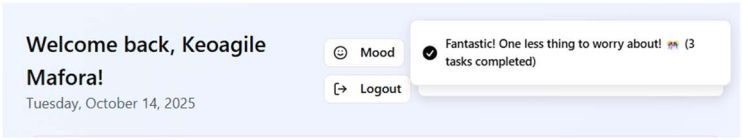

Figure 15

- Rewarding: Added virtual awards, such as certificates for every task done.
  This is shown in Figure 12.
- Emotional Fulfilling: When the user has missed 5 or more deadlines, they receive a milestone.

Design Principles

- **Visibility:** Making things such as deadlines and the upcoming tasks in the coming weeks to be more visible and are shown easily or are shown immediately when opening the application. Like in the dashboard shown above.
  It is shown in Figure 2
- **Feedback:** Added information back to the user to confirm what has happened or what has happened in the system. For example, “The Module is successfully added”.

Figure 16

- **Constraints:** Restricting the user from adding actions that cannot be performed, this is helps the user not to select incorrect things such as. For example, the user will not be able to enter the date from the past.
- **Consistency:** I added buttons that are similar so that there is consistency and the user does not get confused. For example, Using the icon of the plus(+) sign as a button to “Add module” or “Add

modules".
It is shown in Figure 2 above.

- **Affordance:** Making sure that the user does not guess which buttons are clickable, and show that the calendars are interactive

Interaction Types

- **Instructing:** This is what the user will be wanting the system to do. On the website the user instructs the website to add an assignment or a new module, and they can confirm by clicking the "Add Module", for example:
  I have implemented this as shown in figure 10
- **Conversing:** This is where the user is able to conversate with the system via text. For example, when the user asks the system to remind them to do the task the next day.
- **Manipulating:** The users are able to interact with virtual objects and manipulate them. For example, the user is going to be able to change the date of the due date when there is a change in the submission dates. Like the example shown below.

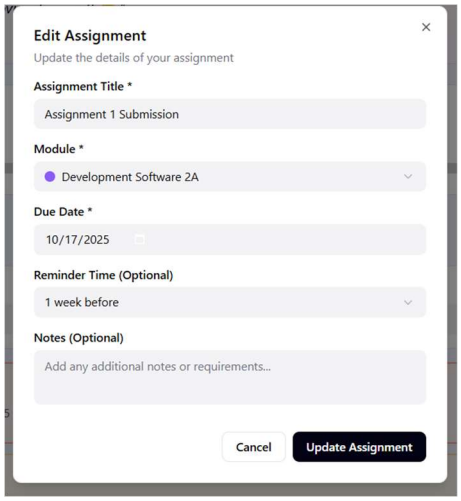

Figure 17

- **Exploring:** This is when the users can move around virtual space. For example, the users can decide to browse through the calendar or navigate the module list to find if there are any tasks.
- **Responding:** When the system initiates the interaction and the user chooses whether they want to respond or not, I implemented this by adding a pop-up notification every time the user enters a task or when there is a task that is due tomorrow the user can choose to snooze it or just click okay.

Social Interaction

Social Interaction is all about how the website supports, and transforms the way people communicate, collaborate, and coordinate with each other using the website. The website will allow students to be:

Being Social

- The system allows the users to be able to interact with other users.
- For example, other students can see their friend's progress of the assignments or submissions only when it is shared. Also adding features such as "Group reminders", where the peers can remind each other on the work that they need to do.

Face-to-Face Conversations

- Face-to-Face Interactions mostly include naturally seeing a person using eye contact, and gestures such as nodding.
- When the students use the website on a group study setting, they can share on a projector, so that they can discuss the work while using the same calendar.

Remote Conversations

- Remote conversations allow people to communicate when they are not located in the same area, for example, emails and chatting.
- For example, when students are working on the same assignment, they can remotely share that the deadline is on the way using the notifications. A chat panel where students are able to comment on the tasks so that they can have a back and forth of conversations.

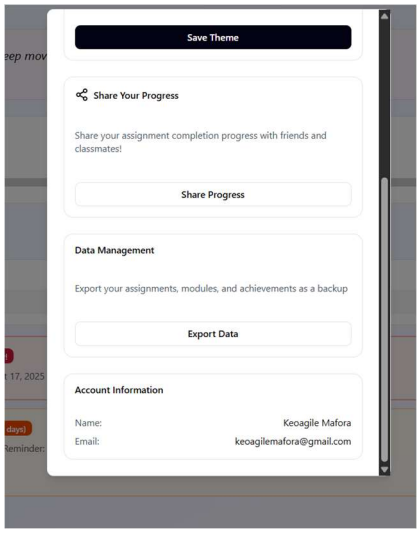

Figure 18

Emotional Interaction

Emotional interaction is about how the user is feeling when using the website which can influence how they interact with the website, and how the system can support how the user feels and respond to how the user is feeling.

Key Points of Emotional Interaction

- Positive emotions can improve how the user is learning and problem solving of the website. Also, when the users are having negative feelings, they can end up quitting
- When designing the website, I designed it that it evokes positive emotions, meaning it will be enjoyable, and motivating. For example, when they meet the deadline, the system will say something playful and visually appealing popouts.
- Having an expressive interface when the user does anything within the website, for example, when the user fails to meet the deadline there will be colors that and a text that will motivate the user that it's okay to fail to meet the deadlines but to never give up.
- The system can give the students some motivation when there is a deadline coming so that they can focus on the coming assignment, for example, cheering ("You can do it!!!") for the user when entering the system so that they don't give up on the assignment.
- There are different cultures, and they all express their emotions differently meaning it must make sure that it accommodates all the cultures so that it can interpret the emotions easily and no one gets offended.

Application of Emotional Interaction

- The website is not for any formal company meaning it has to accommodate the students meaning having an error message such as "Invalid Input", we will say "Oops, this date has passed please try another date!".
- When tasks are complete the website is be able to have a congratulations animation, for example, "Amazing work, you finished your second assignment this week!!!" as shown in Figure 15.
- The website allows the user to enter an emoji to show the system how they are feeling that day, for example the user can put this emoji " 😔 " the website is able to give the user a tip or motivation so that they can feel better.

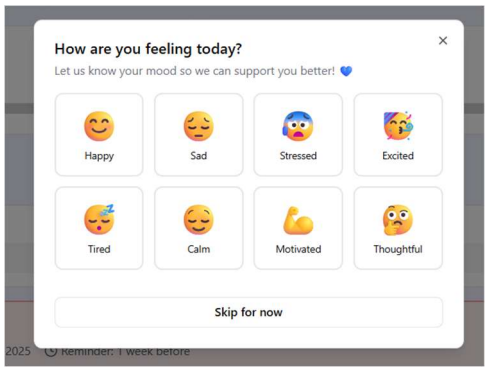

Figure 19

Web Content Accessibility and Guidelines (WCAG) 2.0

According to the W3C(2025), WCAG 2.0 is built on four core principles which are

Perceivable

- The information on the website and the User Interface must be presented in ways that can perceive the user, which is to see, to hear, and to feel.
- For example, having a color contrast between the text and the background of the website, and having alternatives of text to a non-text, meaning we can use emojis so that the website feels good to use. Like the picture shown below

Figure 20

Operable

- The User Interface components and the navigations are usable in multiple ways, meaning there is not only mouse action, but the students are also able to use the keyboard.
- For example, all the functions are available from the keyboard meaning there shouldn't only be mouse action only. I make sure that the designs do not cause the users to have seizures, meaning there is not any flashing content.

Understandable

- Information shown on the website must be clear and consistent.
- For example, having simple and readable language, I also added a navigation that is predictable for the user to use. It is going to be implemented by adding a feature of when I double click a date you can add an assignment.

Robust

- Content must be usable with current technologies and future technologies.
- For example, I used HTML code so that it is on the website.

References

(W3C), W. W. W. C., 2025. *Web Content Accessibility Guidelines (WCAG) 2.1*. [Online]
Available at: https://www.w3.org/TR/WCAG21/
[Accessed 22 September 2025].

Sharp, H., Rogers, Y. & Preece, J., 2019. *Beyond Human-Computer Interaction*. 5th ed. Indiana: John Wiley and Sons, Inc.